

Sentiology

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2. Anatomy of the Sentient

2.1 Genetic structure and organization – Senti₄ –DNA

DNA, deoxyribonucleic acid, is the hereditary material in humans and almost all other organisms, so it is in the Sentient.

A Sentient cell possesses two DNA bundles and one RNA bundle. The DNA molecules are packed in linear chromosomes and floating freely in the cytoplasm while the RNA molecule is located in the core of the organism.

The Senti₄ –DNA winds up into four-stranded chemical structures, so called quadruplexes or “tetraplex nucleic acids”. This structure gives DNA the power to pass along biological instructions with great precision. The RNA of a Sentient is situated in a three-stranded triple-helix.

Each strand of DNA and RNA has a backbone made up of Norpinium, a previously unknown organic metal linked together by energy molecules.

The energy molecules are covalently linked to one of 4 possible bases (Sarpedine, Guanine, Cytosine and Thymine).

Sentiology for dummies

By David Steinhoff

2. Anatomy of the Sentient

2.1 Genetic structure and organization – Senti₄ –DNA

In **1. General Biology** we covered how just one Sentient spore inhaled, can replicate itself to reproduce trillions of Sentient cells within the host.

Senti₄

Sentient DNA, **Senti₄** infects the host's DNA.

Once the host is infected, **Senti₄** is adept at passing along biological instructions that enable the Sentient to swiftly take over and manage the human host but that **requires an enormous amount of energy**.

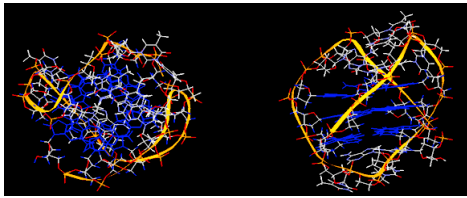
Storage of that energy

The combination of **deuterium** and **tritium** in **Senti₄** DNA enables storage of energy during the assimilation process.

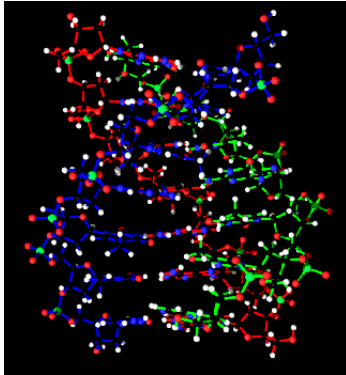
The library

Senti₄ is enormous compared to human DNA.

This is a result of the, '**library**' effect of collecting the best adaptations from many different life forms throughout the universe.



Top and side view of Senti₄ –DNA quadruplex structure



Side view of Senti₄ triple RNA helix

Cytosine(C), a nitrogenous base functions as an energy carrier. It can be easily modified into different bases to carry epigenetic information or to support the DNA healing process.

Sarpedine (S), until now an unknown nuclear-nitrogenous base stabilizes the nucleic acid and plays a significant part in creating TLUX radiation.

Guanine (G), a nitrogenous base is able to carry energy as Guanosine-Triphosphate. It is also a signal carrier if bound to specific receptors and is used in that specific form to enhance TLUX waves.

Thymine (T), also a nitrogenous base functions as the main stabilizer in the Senti₄-DNA.

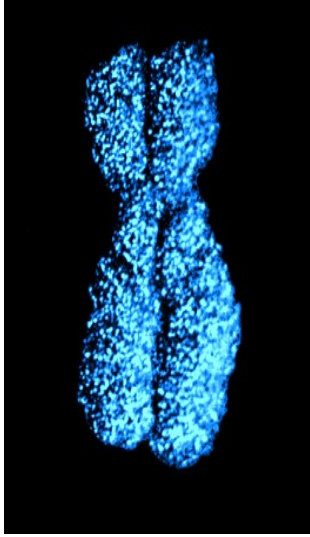
Senti₄ contains so much DNA it requires a glue to hold it together. **Norpinium** is that glue.

Uracil (U) replaces Thymine in Sentient RNA. It is a crystalline organic compound, which has the ability to absorb light. Uracil acts as an allosteric regulator and coenzyme. As an allosteric regulator Uracil binds with the allosteric side of an enzyme where it can alter the enzyme's shape, or confirmation, which then changes how the enzyme functions.

The stacked bases are stabilized by Iridium in the middle of the quadruplex. Iridium is a very hard, silvery-white metal and is also the most corrosion-resistant metal. Iridium forms a chain in the central channel of Sentient DNA and acts as counterbalance for the negative charged Norpinium backbone.

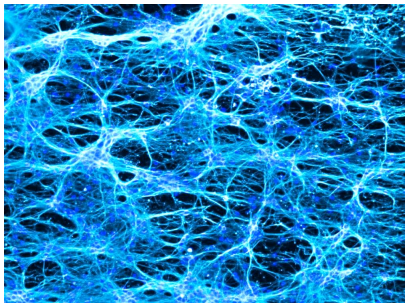
The order, or sequence, of the four bases determines what biological instructions are contained in a strand of DNA. For example, the sequence SGTCTT might instruct for spore forming flagella, while SGT CST might instruct for injection flagella.

The unique structure of a Sentient chromosome keeps the DNA tightly wrapped around spool-like proteins, called histones. Without such packaging, the giant genome of a Sentient would be too long to fit inside its cell organism. A Sentient genome consists of 113 chromosome pairs, containing estimated 713.000 genes with approximately 93 billion DNA base pairs.



Microscopic view of a Sentient chromosome

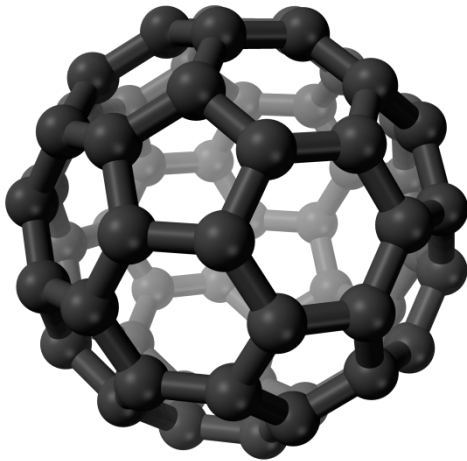
Sentient chromosomes have two outer layers protecting the genome. The inner membrane is made up of a protein-norpinium mixture, while the outer layer is a special nanotube made of pentane. As an organic compound, Pentane is an alkane with five carbon atoms. The carbon is linked by ether to a pseudomurein, called Pseudopeptidoglycan. This makes the chromosome most effective against host defense mechanisms.



Microscopic view of the outer layer of the Sentient chromosome

The DNA end caps are called telomeres. They protect the end of the chromosome from deterioration and their special built in the Sentient makes them fusion generators.

Telomeres play crucial roles in genome integrity and stability.



Structure of a Buckminsterfullerene

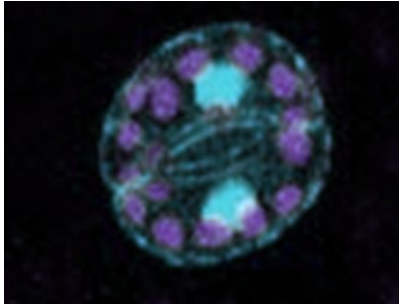
The telomeres of the Senti₄ –DNA have the shape of Buckminsterfullerenes, but come along in a higher density. The DNA end caps have a cage-like half-spherical structure. The molecule is extremely stable, withstanding high pressure and extreme temperatures. The surface of the structure features fimbriae, which function as core docking mechanisms and on the other side as TLUX emitters.

The sphere, consisting of carbon atoms encloses a complex of deuterium, also known as heavy hydrogen, and tritium. Deuterium is one of two stable isotopes of hydrogen. Tritium on the other hand is a radioactive isotope of hydrogen.

The combination of deuterium and tritium in the DNA end cap of the Sentient create a permanent fusion reactor. The Sentient uses the fusion resulting energy as enhancer for TLUX radiation and as energy backup during the assimilation process.

Unlike other living beings, the Sentient DNA only replicates and transcribes itself during the host-assimilation process and the spore-forming process.

As a Sentient cell has no cell cycle, it spends most of its time in a resting phase. During this phase the chromosomes are constantly scanned and repaired by specialized enzymes.



A Sentient DNA-repairing-enzyme

For the procedure the chromosome docks onto the Sentient core. mRNA carrying the repairing-enzymes, travels through the gateway into the chromosome and merges with the DNA. The enzymes are released and start their work of scanning and repairing the DNA. After delivery the mRNA is dismantled and vaporized.